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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,300	02/24/2004	Keith A. Frost	2003-IP-011261U1P2	2120

7590 03/02/2006  
Robert A. Kent  
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EXAMINER

SUCHFIELD, GEORGE A

ART UNIT PAPER NUMBER

3676

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/785,300

Applicant(s)

FROST ET AL.

Examiner

George Suchfield

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-68 is/are pending in the application.
- 4a) Of the above claim(s) 49-68 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 33-37, 39-45, 47 and 48 is/are allowed.
- 6) ☒ Claim(s) 1-9, 12, 17-32, 38 and 46 is/are rejected.
- 7) ☒ Claim(s) 10, 11 and 13-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ✓ 1) ☒ Notice of References Cited (PTO-892) 10/11/05; 12/29/05 4) ☐ Interview Summary (PTO-413)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 8/12/05; 8/19/05; Paper No(s)/Mail Date. \_\_\_\_\_  
✓ 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 8/13/04; 12/3/04; 3/28/05; 6/10/05; 6/18/05; 6/27/05; 6) ☐ Notice of Informal Patent Application (PTO-152)  
Paper No(s)/Mail Date 8/13/04; 12/3/04; 3/28/05; 6/10/05; 6/18/05; 6/27/05; 6) ☐ Other: \_\_\_\_\_

Art Unit: 3676

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-48, drawn to a method of treating a subterranean formation penetrated by a well, classified in class 166, subclass 278.
  - II. Claims 49-68, drawn to a composition, classified in class 507, subclass .

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case, especially in view of the claim language in claim 50 of “capable of”, the composition or product could be used in an overall composition not requiring or involving a reduction of viscosity, e.g., it could be used in a cleaning formulation for above-ground cleaning operations.
  3. Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.
  4. Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.
  5. During a telephone conversation with Robert A. Kent on February 24, 2006 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-48.
- Affirmation of this election must be made by applicant in replying to this Office action. Claims

Art Unit: 3676

50-68 stand withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

7. The disclosure is objected to because of the following:

Applicant's CROSS REFERENCE TO RELATED APPLICATIONS fails to set forth all of the copending and/or related cases. For example, the parent application 10/752,752 is itself, a continuation-in-part of S.N. 10/641,242, which is not recited (along with its filing date).

Throughout the specification, as well as the pending claims, the term "orthoester" is recited. It appears, e.g., upon review of the cited literature, that such term should actually be recited or appear, instead, as -- ortho ester -- . Thus, the term "othoester" may be technically inaccurate.

Appropriate correction is required.

8. Claims 29-32 are objected to because of the following informalities: they appear to be duplicates of previous claims. Specifically, claims 29-32 are deemed a duplicate of claim 8, 9, 17 and 18, respectively. Appropriate correction is required.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 3676

10. Claims 5, 12, 26, 38 and 46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5, 12, 26, 38 and 46 are deemed indefinite in being drawn to improper Markush groupings. As noted in MPEP Section 2173.05(h), the use of the term “comprising” or “comprises” is improper in setting forth the Markush grouping. Accordingly, in lines 1 or 2 of each of these claims, the transitional phrase “comprises” must be changed to, -- is selected from the group consisting of -- or -- is -- .

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claim 1-9, 17, and 19-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirose et al (5,504,235).

Hirose et al discloses a method for decomposing a polysiloxane or silicone polymer compound or mixture, such as a silicone oil, into a silane compound, such as an alkoxysilane, by in one embodiment, contacting a fluid comprising the polysiloxane, such as a silicone oil, with an acid generated from an ortho ester.

While Hirose et al is not explicitly directed to viscosity reduction, it is deemed that in carrying out the embodiment(s) of Hirose et al, wherein the polysiloxane or silicone is in the form of a fluid, such as silicone oil, the step(s) of contacting such polysiloxane fluid with the ortho ester composition, such that the polysiloxane is decomposed by the acid generated from the ortho ester, will inherently or necessarily reduce the viscosity of the polysiloxane fluid. Such viscosity reduction is deemed to occur insofar as the polysiloxane or silicone, which comprises a large polysiloxane compound, will possess a higher viscosity, e.g., in being a polymer, than the resulting silane decomposition product, which chemically resembles the alkane class of compounds. Further in this regard, no patentable weight is accorded to the term “treatment fluid”, e.g., as recited in independent claims 1 and 22, since it merely appears in the claim(s) preamble and/no no actual steps are recited for treating a well and/or subterranean formation.

As per claims 2-7 and 23-28, the ortho esters utilized by Hirose et al (note col. 2, lines 28-46) appear to encompass those recited in these claims, e.g., Hirose et al discloses use of ortho acetate.

As noted above with respect to claims 1 and 22, no patentable weight is accorded to the adjectives “fracturing” or “gravel pack” recited in claims 8, 9, 29 and 30 since no steps of actually fracturing or gravel packing a formation are set forth. Also, the polysiloxane or silicone, in the various forms disclosed, can be construed as a “gelling” agent (for what?) or “hydratable”, as broadly recited. Moreover, the polysiloxane in the form of, e.g., a “silicone oil” appears to be capable of such use, in comprising a hydraulic fluid having a high viscosity due to the silicone component.

As per claims 17 and 31, the ortho ester composition utilized in the method of Hirose et al (note col. 4, lines 16-41) may further comprise water.

As per claim 19, Hirose et al (note col. 4, line 38-41) teaches that the water or active hydrogen-containing component may be used in less than a stoichiometric amount – in which case, the water component can be construed as an “inhibitor”, as broadly recited. Similarly, the use of such amount of water would then also impart a “desired delay period” to the decomposition, and accompanying reduction of viscosity, of the polysiloxane fluid.

As per claim 20, the ortho ester composition utilized by the method of Hirose et al appears to be at least in “solution” form.

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 18 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirose et al (5,504,235).

Hirose et al may include water as a component for providing an active hydrogen-containing group in their ortho ester composition for treating the polysiloxane fluid.

Insofar as the reaction rate of the polysiloxane or silicone decomposition is directly related to the amount of active hydrogen-containing component, it is deemed that precise amount or range of water utilized would have been an obvious matter of choice or design, to one of

Art Unit: 3676

ordinary skill in the art, based on, e.g., the actual polysiloxane or source of polysiloxane fluid, such as silicone oil, to be decomposed or encountered in the field.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Claims 10, 11, 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. Claim 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

18. Claims 38 and 46 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

19. Claims 33-37, 39-45, 47 and 48 are allowed.

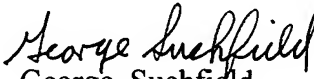
Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Suchfield whose telephone number is 571-272-7036. The examiner can normally be reached on M-F (6:30 - 3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 3676

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
George Suchfield  
Primary Examiner  
Art Unit 3676

Gs  
February 25, 2006